UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/723,482	11/28/2000	Dave McDysan	RIC-00-033	7585

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Technology Law Department
MCI WORLDCOM, INC.
1133 19th NW
Washington, DC 20036

EXAMINER
LEVITAN, DMITRY

ART UNIT	PAPER NUMBER
2662	9

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 November 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some *   c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____ .

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date *6-8*.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

Drawings

1.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because:

        a.   they include the following reference sign(s) not mentioned in the description

"70" on Fig. 2.

        b.   typographical error on Fig. 4, "To Networ" instead of To Network.

        A proposed drawing correction, corrected drawings, or amendment to the specification to

add the reference sign(s) in the description, are required in reply to the Office action to avoid

abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2.   The disclosure is objected to because of the following informalities:

        a.   Empty areas reserved for Application Serial Numbers on page 1:9-14;

        b.   typographical error on page14:17, router 34 instead of router 32.

        Appropriate correction is required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making
> and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it
> pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode
> contemplated by the inventor of carrying out his invention.

4.   Claims 21-39 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with

the enablement requirement. The claim(s) contains subject matter which was not described in

the specification in such a way as to enable one skilled in the art to which it pertains, or with

which it is most nearly connected, to make and/or use the invention.

The specification does not provide sufficient details to enable a skilled in the art to make and use

the invention because it does not adequately describe the following:

Regarding claim 21, how to perform filtering the series of packets to identify messages upon

which policy-based services are to be implemented.

The specification does not provide enough details about the structure and operation of the

elements associated with the above identified claimed features to enable one skilled in the art to

make and use the invention without undue experimentation.

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

6.   Claims 1- 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

Claim 1 limitation "a message interface coupled to said external processor and first and second

interfaces" is unclear because it could be interpreted as: a) a message interface coupled to said

external processor only or b) a message interface coupled to said external processor and first and

second interfaces.

Claim 20 limitation "an access router coupled between the programmable access device a

network core" is unclear. It seems that "a" is a typographical error and should read as "and".

Claim 21 limitation "a series of packet" is unclear, because it was neither defined in the

disclosure nor well known term of the art.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8.   Claims 1, 5, 7, 8, 11, 13, 17-21, 25, 27, 28, 31, 33, 37 and 38 are rejected under 35

U.S.C. 102(b) as being anticipated by Hendel (US 5,920,566).

Regarding claims 1, 20 and 21 (as understood), Hendel teaches a network access system

(MDLNE on Fig. 1 and 2, 6:33-49), comprising:

An external processor that invokes a policy based service on received messages (CPS 260

on Fig. 2 and 7:29-37); and

A programmable access device (subsystem 210 on Fig. 2 and 7:5-8) having a message

interface coupled to said external processor (bus 251 on Fig. 2 and 7:30-33) and first and second

network interfaces through which packets are communicated with a network (external

connections 217 with input and output capabilities on Fig. 1 and 2, 7:15-17), wherein said

programmable access device includes a packet header filter (switching element 211 on Fig. 2 and

7:19-23) and a forwarding table that is utilized to route packets communicated between the first

and second network interfaces (forwarding memory 213 and associated memory 214 on Fig. 2

and 3, 7:49-67 and 8:1-14), wherein said packet header filter identifies messages received at one

of the network interfaces on which policy-based services are to be implemented and passes

identified messages (messages that do not match type 2 entries in the forwarding memory of the

switching element 9:21-32) via message interface to the external processor for processing (CPS

examines access policies and perform processing/routing 9:25-30).

In addition, regarding claim 20, Hendel teaches a policy decision point (CPS 260 on Fig. 2 and

7:29-37) and an access router (router 107 on Fig. 1).

Regarding claims 5, 8, 25 and 28, Hendel teaches an external processor includes a

plurality of programmable device controllers/service controllers that each control one of plurality

of programmable access devices (inherently part of the system, because CPS has a direct control

and communication interface with each subsystem 210, 7:37-39).

Regarding claims 7 and 27, Hendel teaches the external processor comprises a signaling

controller, responsive to a service controller (signaling controller is a service controller),

performs network signaling to setup a network connection (using routing protocols and setting

data path resources 7:37-45).

Regarding claims 11 and 31, Hendel teaches a control interface between the external

processor and the access device (communication bus 251 on Fig. 2 and 7:30-39), through which

operation of the filter and forwarding table are controlled by the external processor (inherently

part of the system, because CPS contains copies of all forwarding tables and controls their

entries 7:34-48).

Regarding claims 13 and 33, Hendel teaches filtering packets for service processing

based on protocol layer information higher than layer 3 (examining layer 3 and 4 information of

an initial packet 4:1-9).

Regarding claims 17-19, 37 and 38, Hendel teaches an access router (router 107 on Fig.

1) coupled to the second network interface of the programmable access device (connection 217

between MLDNE and router 107 on Fig. 1); a switched access network (backbone network on

Fig. 1) coupling said access router and the second network interface coupled to a core router

(inherently part of backbone network, because all backbone networks comprise routers).

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

10.   Claims 6, 9, 10, 12 16, 26, 29, 30, 32, 36 and 39 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Hendel.

Regarding claims 6 and 26, Hendel teaches all the limitations of parent claims 5 and 25.

Hendel does not teach using primary and secondary controllers to utilize the secondary controller

if the primary fails.

Official notice is taken that using primary and secondary controllers to utilize the secondary

controller if the primary fails is well known and expected in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use primary and secondary controllers to utilize the secondary controller if the primary fails in the system of Hendel to improve the system reliability.

Regarding claims 9, 10, 29 and 30, Hendel teaches all the limitations of parent claims 1 and 21.

Hendel does not teach using NMS server with billing facility coupled to the external processor. Official notice is taken that using NMS server with billing facility coupled to the external processor is well known and expected in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use NMS server with billing facility coupled to the external processor in the system of Hendel to improve the system billing capabilities.

Regarding claims 12 and 32, Hendel teaches all the limitations of parent claims 1 and 21. Hendel does not teach monitoring traffic to gather statistics for reporting to the external processor. Official notice is taken that monitoring traffic to gather statistics for reporting to the external processor is well known and expected in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to monitor traffic to gather statistics for reporting to the external processor in the system of Hendel to improve the system control capabilities.

Regarding claims 16 and 36, Hendel teaches all the limitations of parent claims 1 and 21. Hendel does not teach output buffers and a scheduler to output packets according to service classes. Official notice is taken that output buffers and a scheduler to output packets according to service classes is well known and expected in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made

to add output buffers and a scheduler to output packets according to service classes to the system

of Hendel to improve the system operation with different service classes.

Regarding claim 39, Hendel teaches all the limitations of parent claim 21.

Hendel does not teach using an intermediate network between the external processor and the

access device. Official notice is taken that using an intermediate network between the external

processor and the access device is well known and expected in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made

to add an intermediate network between the external processor and the access to the system of

Hendel to improve the system operation with remotely located external processor.

11.   Claims 2-4, 14, 15, 22-24, 34 and 35 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hendel in view of Nessett (US 5,968,176).

Hendel teaches all the limitations of parent claims 1 and 21.

Regarding claims 2-4 and 22-24, Hendel does not teach using one or plurality of policy

servers and caching selective policies.

Nessett teaches using one or plurality of policy servers (Fig. 1 and 2, 6:64-66 and 11:9-18) and

caching selective policies (21:25-33).

It would have been obvious to one of ordinary skill in the art at the time the invention was made

to incorporate one or plurality of policy servers and caching selective policies of Nessett into the

system of Hendel to improve the system reliability.

Regarding claims 14, 15, 34 and 35, Hendel does not teach a policer (policy management

agents on Fig. 1) to police the packets by reference of the traffic parameters (3:48-57) and marks

the packets that do not conform (inherently part of the system because filtering involves

dropping or transforming of nonconforming packets and marking them for drop or

transformation is essential to perform filtering 1:20-30).

Nessett teaches a policer to police the packets by reference of the traffic parameters and marks

the packets that do not conform. It would have been obvious to one of ordinary skill in the art at

the time the invention was made to incorporate a policer to police the packets by reference of the

traffic parameters and marks the packets that do not conform of Nessett into the system of

Hendel to improve the system reliability.

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Hendel	US005920566A	Routing in a multi-layer distributed network element.
Nessett	US005968176A	Multi-layer firewall system.
Hendel	US006081522A	System and method for a multi-layer network element.
Hoffman	US006094435A	System and method for a quality of service in a multi-layer network element.
Muller	US005938736A	Search engine architecture for a multi-layer network element.
Lin	US006542508B1	Policy engine using stream classifier.

Hughes   US005842040A   Policy caching method.

Yu   US006625150B1   Policy engine architecture.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is 703-305-4384. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dmitry Levitan
Patent Examiner
05/28/04.

HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600